SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D. C. 20549

FORM 11-K

ANNUAL REPORT

Pursuant to Section 15(d) of the Securities Exchange Act of 1934

For the Fiscal Year Ended June 30, 2004

POTOMAC ELECTRIC POWER COMPANY SAVINGS PLAN FOR BARGAINING UNIT EMPLOYEES (Full title of plan)

<u>PEPCO HOLDINGS, INC.</u> (Name of issuer of securities held pursuant to the plan)

701 NINTH STREET, N.W.

WASHINGTON, D. C. 20068

(Address of principal executive office)

Exhibits:

Exhibit 23 Consent of Independent Registered Public Accounting Firm

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the Administrative Board has duly caused this annual report to be signed on its behalf by the undersigned, thereunto duly authorized.

POTOMAC ELECTRIC POWER COMPANY SAVINGS PLAN FOR BARGAINING UNIT EMPLOYEES

By: D. R. WRAASE

Dennis R. Wraase, Chairman

Administrative Board

Date: December 17, 2004

Potomac Electric Power Company Savings Plan for Bargaining Unit Employees Financial Statements and Supplemental Schedules June 30, 2004 and 2003

Potomac Electric Power Company

Savings Plan for Bargaining Unit Employees

Financial Statements and Supplemental Schedules

June 30, 2004 and 2003

	Page No.
Financial Statements:	
Report of Independent Registered Public Accounting Firm	1
Statements of Net Assets Available for Benefits at June 30, 2004 and 2003	2
Statements of Changes in Net Assets Available for Benefits for the years ended June 30, 2004 and 2003	3
Notes to Financial Statements	4
Additional Information:*	
Schedule H, Line 4iSchedule of Assets (Held at End of Year) at June 30, 2004	13

^{*} All other schedules required by 29 CFR 2420.103-10 of the Department of Labor's Rules and Regulations for Reporting and Disclosure under ERISA are not applicable and are therefore omitted.

Report of Independent Registered Public Accounting Firm

To the Participants and Administrative Board of the Potomac Electric Power Company Savings Plan for Bargaining Unit Employees

In our opinion, the accompanying statements of net assets available for benefits and the related statements of changes in net assets available for benefits present fairly, in all material respects, the net assets available for benefits of the Potomac Electric Power Company Savings Plan for Bargaining Unit Employees (the "Plan") at June 30, 2004 and 2003, and the changes in net assets available for benefits for the years then ended in conformity with accounting principles generally accepted in the United States of America. These financial statements are the responsibility of the Plan's management. Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

Our audits were conducted for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplemental schedule of assets (held at end of year) is presented for the purpose of additional analysis and is not a required part of the basic financial statements but is supplementary information required by the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974. The supplemental schedule is the responsibility of the Plan's management. The supplemental schedule has been subjected to the auditing procedures applied in the audits of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

PricewaterhouseCoopers LLP Washington, DC December 17, 2004

Potomac Electric Power Company Savings Plan for Bargaining Unit Employees Statements of Net Assets Available for Benefits

	June 30,	
	2004	2003
Investments:		
Interest in Pepco Retirement Savings Plan Master Trust	\$ 95,253,717	\$ 88,631,564
Loans to Participants	10,158,395	10,389,330
Net Assets Available for Benefits	<u>\$ 105,412,112</u>	\$ 99,020,894

The accompanying notes are an integral part of these financial statements.

Potomac Electric Power Company Savings Plan for Bargaining Unit Employees Statements of Changes In Net Assets Available for Benefits

	Year Ended June 30,	
	2004	2003
Additions:		
Contributions:		
Employer	\$ 1,169,271	\$ 1,172,306
Participants	5,274,272	5,338,944
Total Contributions	6,443,543	6,511,250
Investment Income (Loss):		
Interest	537,698	687,628
Interest in the Net Investment Income / (Loss) in the Pepco Retirement Savings Plan Master Trust	6,542,693	(658,184)
Total Net Investment Income (Loss)	7,089,391	29,444
Total Additions	13,523,934	6,540,694
Deductions:		
Distributions to Participants and Beneficiaries	6,882,261	4,223,836
Brokerage and Investment Management Fees	39,070	35,639
Total Deductions	6,921,331	4,259,475
Net Increase Prior to Transfer To Another Plan	6,602,603	2,281,219
Transfer To Another Plan	(211,385)	(929,905)
Net Increase	6,391,218	1,351,314
Net Assets Available for Benefits at Beginning of Year	99,020,894	97,669,580
Net Assets Available for Benefits at End of Year	\$ 105,412,112	\$ 99,020,894

The accompanying notes are an integral part of these financial statements.

NOTE 1 – General Description of Plan

The Potomac Electric Power Company Savings Plan for Bargaining Unit Employees (the "Plan") is a defined contribution employee benefit plan established by Potomac Electric Power Company (the "Company" or "Pepco") effective July 1, 1986. The Plan permits participation by full-time bargaining unit employees of the Company and its subsidiaries at date of employment. However, there is no Company matching contribution until the employees have completed one year of service. Participation in the Plan is voluntary. The Plan is subject to the provisions of the Employee Retirement Income Security Act of 1974.

Participants are 100% vested in the Pepco Company matching contributions at the earlier of (1) the date on which a participant completes three years of service with the Company, (2) the date of a participant's retirement, (3) the date of a participant's death, (4) the date a participant begins a period of disability, or (5) the date a participant reaches age 65. Participants are fully vested and have a nonforfeitable interest in their own contributions, including any earnings or losses thereon. Forfeited non-vested amounts are used to reduce future employer contributions.

The Plan allows participants to diversify their vested Company Matching Contributions regardless of age or years of participation in the Plan. In addition, catch-up contributions are allowed to participants who are at least 50 years of age by the end of the calendar year and who have contributed the lesser of Plan or statutory maximums to the Plan. In accordance with The Economic Growth and Tax Relief Reconciliation Act of 2001, the Plan allows additional catch up pre-tax contributions of up to \$2,000 in 2003, \$3,000 in 2004, \$4,000 in 2005 and \$5,000 in 2006.

Designation of Trustee:

The Plan's Trustee is Fidelity Management Trust Company ("Fidelity") of Boston, MA.

Designation of Recordkeeper:

Fidelity Investments Institutional Operations Company serves as recordkeeper of the Plan records.

Contributions and Investment Elections:

Each participant may elect to contribute, through payroll redirection or deductions, from 1% to 6% (basic contribution), in multiples of 1%, of their annual rate of salary as basic contributions to the Plan. Participants making the maximum 6% basic contribution may elect to contribute an additional 1% to 44% of their annual rate of salary, in multiples of 1%, as supplemental contributions to the Plan. Participants may contribute savings under the Cash or Deferred Arrangement ("CODA") within the meaning of Section 401(k) of the Internal Revenue Code of 1986, as amended, up to a maximum of \$13,000 per calendar year (effective January 1, 2004) and/or after-tax ("Thrift") elections. Maximum participant contributions of \$12,000 were allowed beginning January 1, 2003. The sum of the elected percentages for CODA and Thrift contributions and the Company matching contributions may not exceed 50% of a participant's annual salary. A participant is prohibited from making elective contributions to the Plan for one year following a hardship withdrawal. The Plan accepts rollovers.

The Company contributes to the Plan by matching the participant's basic (first 6%) contributions. The Company contributes either cash, which is used exclusively for the purchase of Company common stock in a timely manner after date of receipt, or Company common stock. The Company matches 40% of basic CODA contributions. The Company matches 40% of basic Thrift contributions. The Company does not match a Participants' supplemental contributions. Participant's forfeitures of non-vested Company contributions are used to reduce future Company contributions are used to reduce future Company contributions are used to reduce future Company contributions that would otherwise be required.

At June 30, 2004 and 2003, forfeited nonvested accounts totaled \$3,946 and \$1,134, respectively. These amounts will be used to reduce future employer contributions. Also, in 2004 and 2003, employer contributions were reduced by \$749 and \$4,500, respectively, from forfeited nonvested accounts.

Each participant's account is credited with the participant's contributions and allocations of (a) the Company's contribution and (b) Plan earnings (losses), and charged with an allocation of certain administration expenses. Allocations are based on participant earnings or account balances, as defined in the Pepco Retirement Savings Plan Master Trust ("Master Trust") Agreement.

Participants may elect to have their contributions invested, in multiples of 1%, in one or more of the available investment funds. The available investment funds are a Company Common Stock Fund and a variety of Fidelity mutual funds of the following asset types: Income, Balanced, Growth & Income, Growth, International and Asset Allocation. Upon completion of the merger between Pepco and Conectiv, August 1, 2002, the Pepco Common Stock Fund assets were transferred to the Pepco Holdings Stock Fund and the underlying stock was renamed the Pepco Holdings, Inc. ("PHI") common stock. There was no difference in participant accounts other than the change in the name of the fund. The fund is hereinafter referred to as the Pepco Holdings Stock Fund.

The investment options were selected by the Trustee and the Administrative Board of the Plan and are intended to provide diversified categories of investments with different risk and return characteristics that will enable participants to create an investment portfolio to meet their individual goals, depending on the level of risk they are willing to accept.

Effective July 1, 1998, the U.S. Savings Bond Fund was closed to any new contributions to the fund.

Participants can transfer all or part of their contribution balance and related earnings in any fund to any other fund with the exception of the U.S. Savings Bond Fund. Participants may change the allocation of their future contributions among the funds at any time.

Distributions and Withdrawals:

Participants may request, at any time, the withdrawal of Thrift account balances attributable to their own contributions and vested Company contribution account balances. The withdrawal of participant basic CODA and Thrift contributions, prior to the vesting of related Company contributions, will result in the forfeiture of related matching Company contributions. The withdrawal of CODA contributions, prior to a participant having reached age 59 1/2 or having terminated from the Company, is permissible only in circumstances involving financial hardship.

If a participant retires, qualifies for long-term disability, or dies while employed, all Company contributions made on their behalf, and earnings thereon, become immediately vested and their entire interest in the Plan may be distributed in a lump sum to them or their designated beneficiary.

Participants who are eligible to retire under the Company's General Retirement Plan may elect to have their Savings Plan balances remain in the Plan and have their balances paid to them annually over a period of ten years or their projected life expectancy (or joint life expectancy of the employee and spouse).

Distributions from the Pepco Holdings Stock Fund are made in shares of Company common stock unless the participant elects to receive cash. Savings bonds purchased with CODA or Thrift contributions are reinvested at maturity and can only be withdrawn from the Plan upon termination of employment or attainment of age 59 1/2. U.S. Savings Bond Funds are distributed in cash or bonds as elected by the employee. Distributions from any of the other Plan funds are made in cash.

From time to time participants may change employment status with the Company during a plan year and as a result their account balance is transferred to one of the Company's other qualified defined contribution plans. This asset movement is identified in the statement of changes in net assets available for benefits as a transfer (to) from another plan.

Loans:

Loans are available to participants from amounts attributable to CODA contributions, subject to U.S. Department of Labor and Internal Revenue Service (the "IRS") limitations. The Plan requires that a minimum of \$1,000 be borrowed by a participant. The number and amount of loans allowed to a participant are restricted by the Plan. A participant can have up to four loans outstanding at any time with maximum term lengths of five years, or thirty years for a primary residence. The prevailing prime rate is applied as the interest rate for the loan. Loan repayments are made through payroll deductions. Upon termination from the Company, a participant can elect to continue to make loan repayments. If the loan repayments are not made for a period of three months, the loan is in default and is converted to a distribution. A one time loan fee of \$50 is deducted from the participant's account with Fidelity at the time of distribution.

Plan Administration and Termination:

The Plan is administered by an Administrative Board, which is appointed by the Company's Board of Directors. All contributions to the Plan are held in trust by Fidelity, the Plan Trustee, for the exclusive benefit of the participants. The Company generally pays the trustee fees and other administrative expenses of the Plan, while the Plan pays brokerage fees, investment management fees and other investment transaction costs.

The Plan is a defined contribution plan. Interests in the Plan are not insured by the Company and are not guaranteed by the Pension Benefit Guaranty Corporation, an agency of the United States government.

Although the Company intends to continue the Plan indefinitely, it reserves the right to terminate or amend the Plan at any time. In the event of the termination of the Plan, all Company contributions become immediately vested to Plan participants.

NOTE 2 - Significant Accounting Policies

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and changes therein, and disclosure of contingent assets and liabilities. Actual results could differ from those estimates. The Plan's financial statements are prepared on the accrual basis of accounting.

The Plan provides for various investment options. Investment securities are exposed to various risks, such as interest, market and credit risks. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect participants' account balances and the amounts reported in the statement of net assets available for benefits.

The Plan presents in the statement of changes in net assets available for benefits the Plan's interest in the net investment income (loss) in the Master Trust, which consists of the realized gains or losses and the unrealized appreciation (depreciation) on those Master Trust investments.

Company common stock held in the Pepco Holdings Stock Fund is valued at fair market value, measured by the current quoted market price. Participants hold units in the fund and not shares, the value of which was \$6.22 and \$6.52 per unit at June 30, 2004 and 2003 respectively, versus PHI common stock, which was valued at \$18.28 and \$19.16 per share at June 30, 2004 and 2003 respectively. Purchases and sales of securities are recorded on a trade date basis. Dividends are recorded on the ex-dividend date. Interest on participant loans and money market accounts are recorded when earned.

United States Savings Bonds, Series EE, which were purchased prior to July 1, 1998 by the Trustee on behalf of those participants electing to invest through the U.S. Savings Bonds Fund, are reported at original cost, which approximates fair value.

Loans to participants are valued at cost, which approximates fair market value.

Benefit payments to participants are recorded when paid.

Related Party Transactions:

Certain Plan investments are shares of mutual funds managed by Fidelity Investments Institutional Operations Company ("FIIOC"). FIIOC is affiliated with the Fidelity Management Trust Company who is the Plan's trustee as defined in the Plan and, therefore, these transactions qualify as party-in-interest. Fees paid by the Plan for the investment management services amounted to \$39,070 and \$35,639 for the Plan years ended June 30, 2004 and 2003, respectively.

The Company as Plan sponsor is a related party. At June 30, 2004 and 2003, the Plan held an investment of 1,605,401 and 1,619,979 shares of Pepco Holdings, Inc. common stock, respectively. These shares are included in 4,811,983 and 4,848,609 units of the Pepco Holdings Stock Fund at June 30, 2004 and 2003, respectively. The fair market value of the common stock at June 30, 2004 and 2003 was \$29,346,722 and \$31,038,795, respectively. Purchases of \$5,411,086 and \$4,297,647 and sales of \$5,633,477 and \$3,551,528 of Company common stock were made during the Plan years ended June 30, 2004 and 2003, respectively.

NOTE 3 - Tax Status of the Plan

The IRS has determined, most recently in December 2003, that the Plan is a qualified employee benefit plan under Section 401(a) of the Internal Revenue Code of 1986, as amended (the "Code"), and that the Trust is a qualified tax exempt employee benefit trust under Section 501(a) of the Code. The Plan Administrator believes that the Plan is designed and currently being operated in compliance with the applicable requirements of the Code. Participants are not taxed on the income allocated to contributions made for their account until such time as they or their beneficiaries receive distributions from the Plan.

NOTE 4 - Assets Held in a Master Trust at Fidelity Management Trust Company

At June 30, 2004 and 2003, the Plan's investment assets were held in a trust account at Fidelity and consist of a specific interest in the Pepco Retirement Savings Plan Master Trust ("Master Trust"). Contributions, benefit payments and investment income (loss) are specifically allocated to the appropriate participating plan on a daily basis as applicable. The Master Trust also includes the investment assets of the Potomac Electric Power Company Savings Plan for Non-Bargaining Unit, Non-Exempt Employees and the Potomac Electric Power Company Savings Plan for Exempt Employees.

The following table represents the assets held by the Master Trust along with the related investment income (loss):

	June 30, 2004	June 30, 2003
Investments:		
Interest Bearing Cash	\$ 2,592,493	\$ 2,442,441
U.S. Government Securities	325,542	328,975
Interest in Common/Collective Trusts	91,654,928	88,203,992
Pepco Holdings Stock Fund	84,385,837	93,345,318
Interest in Registered Investment Companies	117,961,454	95,608,902
	\$ 296,920,254	\$ 279,929,628
	Year Ended <u>June 30, 2004</u>	Year Ended June 30, 2003
Net Master Trust Investment Income (Loss):		
Interest	\$ 20,039	\$ 967,626
Dividends	4,259,786	4,370,104
Net Appreciation (Depreciation) on the Fair Value of Investments:		
Pepco Holdings Stock Fund	(3,863,033)	(10,599,853)
Common Collective Trusts	4,861,377	2,537,719
Mutual Funds	17,286,628	1,215,374
Net Master Trust Investment Income (Loss)	\$ 22,564,797	\$ (1,509,030)

The Plan's specific interest in the Master Trust as a percentage of total assets of the Master Trust at June 30, 2004 and 2003 was 32.1% and 31.7%, respectively.

NOTE 5 - Information About Non-Participant Directed Investments Relating to the Pepco Holdings Stock Fund for the Savings Plan for Bargaining Unit, Employees

	June 30,	
	2004	2003
Investments:		
Pepco Holdings Stock, Inc. Common	\$ 29,346,722	\$ 31,038,795
Cash	583,814	574,133
Total Pepco Holdings Stock Fund	\$ 29,930,536	\$ 31,612,928

Note: The Plan does not separately account for participant and non-participant directed investments in the Pepco Holdings Stock Fund, therefore, the information presented includes both participant and non-participant directed balances.

NOTE 5 - Continued

Significant components of the Plan's Changes in Net Assets relating to the Pepco Holdings Stock Fund are as follows:

	Year Ended June 30,	
	2004	2003
Contributions:		
Employer	\$ 1,169,062	\$ 1,080,570
Participants	1,594,410	1,521,603
Total Contributions	2,763,472	2,602,173
Investment Income:		
Dividends on Pepco Holdings Stock Fund	1,481,148	1,599,380
Interest	102,263	117,856
Net Depreciation on Pepco Holdings Stock Fund	(1,291,329)	(1,447,063)
Net Investment Income	292,082	270,173
Distributions to Participants and Beneficiaries	(3,236,513)	(2,389,521)
Brokerage and Investment Management Fees	(23,367)	(17,417)
Net Transfers to other Plan investment options	(1,444,387)	(3,548,644)
Transfer To Another Plan	(33,679)	(289,172)
Net Decrease	(1,682,392)	(3,372,408)
Net Assets Available for Benefits at Beginning of Year	31,612,928	34,985,336
Net Assets Available for Benefits at End of Year	\$ 29,930,536	\$ 31,7612,928

Note: The Plan does not separately account for participant and non-participant directed investments in the Pepco Holdings Stock Fund, therefore, the information presented includes both participant and non-participant directed balances.

NOTE 6 - Investments Greater Than 5% of Net Assets

The fair market value of individual investments that represent 5% or more of the Plan's net assets are as follows:

	June 30	
	2004	2003
Interest in Pepco Retirement Savings Plan Master Trust	\$ 95,253,717	\$ 88,631,564
Loans to Participants	10,158,395	10,389,330

Potomac Electric Power Company Savings Plan for Bargaining Unit Employees Supplemental Schedule

Schedule H, Line 4i--Schedule of Assets (Held at End of Year)

	<u>June</u>	230, 2004
(a) (b) (c) Identity of Issuer, Description	(d) Cost	(e) Current Value
Plan Master Trust	**	\$ 95,253,717
Participant Loans * (interest rates from 4.0% to 9.5%; maturity dates range from 7/1/2004 to 4/12/2034)		10,158,395
Total Assets Held for Investment Purposes		\$ 105,412,112

^{*} Party -in-interest

^{**}Omitted due to funds being participant directed